AMENDMENTS TO THE ABSTRACT:

Please replace the abstract with the following:

An apparatus and method for transmitting and receiving a bit stream. On the transmission side, ~~In a wireless communication system,~~ coded bits (Y.sub.t) and an interleaved version of the coded bits (X.sub.t) are separately modulated and transmitted. On the reception~~iver~~ side, a priori output probabilities produced by a probability generator (34) are combined (112) and then input to a SISO decoder (111). Combined a posteriori output probabilities (115) produced by the SISO decoder are split (113) and then fed back to the probability generator.